



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

hydrographical facts that made us until now consider the fall of the Jordan as an unusual phenomenon.

[NOTE.—The heights for the Shannon are taken from the Ordnance Maps, except those of Castle Connel and Castle Troy, which are calculated from data given in Fraser's Handbook; those for the Thames are derived from Bradshaw's Maps of Canals of the Southern and Midland Counties, and those for the Clyde are chiefly taken from Railway Plans. For the Tweed, the height of source is determined by barometrical observation (Fullarton), and the other altitudes from Railway Plans. In the accompanying diagram I have added a section to show the whole extent of the depression of the Jordan valley. It will be observed that the southern slope is much steeper than the northern, which reaches the level of the Mediterranean at a point about 1 mile below Jacob's Bridge (101 Eng. miles from the Dead Sea), while in the Wady el Arabah the same level is attained at a distance of only about 44 miles from the Dead Sea.* Thus I compute the whole length of the depression at 190 Eng. miles—northern slope 101, Dead Sea 45, southern slope 44.]

X.—*Expedition to the Jordan and the Dead Sea.* By Lieut. MOLYNEUX, of H.M.S. Spartan.

[Read March 27, 1848.]

AFTER a very tedious passage from Beirout, Her Majesty's ship Spartan anchored off the town of Caiffa, at the southern side of the bay of Acre, and we immediately commenced putting into execution our project of carrying the ship's dingy, or smallest boat, overland to Tiberias; from thence to take her down the river Jordan to the Dead Sea; and, after a few days spent in exploring those interesting regions, to convey her back to the ship by way of Jerusalem and Jaffa. Our objects were to examine the course of the Jordan, as well as of the valley through which it runs, and specially to measure the depth of the Dead Sea. Captain Symonds, being anxious that the above views should if possible be carried out, did everything in his power to promote and further them; and as I was equally anxious to endeavour to fulfil his wishes, I was only too glad to volunteer my services for the purpose. Having therefore secured three good volunteer seamen from the ship (Grant, Lyscomb, and Winter), and having received every assistance from my messmates, by 3 P.M. on the 20th of August, 1847, all was prepared and ready for a start. We had brought Toby from Beirout to act as a dragoman, along with his two horses, tent, and canteen, which, with provisions, arms, and other requisites, were hoisted into one of the boom-boats; and at 4 P.M. we shoved off from the ship with the dingy in tow. We made sail for Acre, at the opposite side of the bay, and 2½ hours brought us under its walls, most of which have been built anew since the bombardment in 1840. We landed all the things and pitched our tent in the sand within a few yards

* Petermann's Map of Lower Egypt, Sinai, and Arabia Petræa, in Dr. Beard's 'People's Dictionary of the Bible.'

of the sea. The captain had provided me with a letter from the pasha, and another for the consul at Jerusalem; and, with the promised assistance of our worthy vice-consul, I lay down in hopes of being able to make a prosperous departure in the morning. The night was lovely, and the sea-air deliciously cool.*

Saturday, August 21st.—Mr. Finzi, the vice-consul, had provided us with four good camels for boat and baggage, and three horses for the men. After breakfast and the altercations and harangues which unavoidably attend all dealings with the Arabs, we succeeded in making a start at 9 A.M., mounted on two fine camels—having previously sent on the little boat, so that she got considerably ahead while we were employed in striking the tent. The road was remarkably good; for the first two hours a four-in-hand might have been comfortably driven along it. The plain through which it passed appeared well cultivated, being almost entirely covered with the stubble of Indian corn. At 11h. 25m. A.M. we turned aside a little to the right, to avoid a small insulated mound, at the foot of which there was a well of good water; and there we enjoyed the first growls of the Arabs in charge of the camels, for, as we came to a slight ascent, so they began to make a greater noise in proportion. The hindmost camel with the boat came to his knees, but recovered himself well. 12h. 40m. P.M., got through an awkward pass, and came in sight of the village Abilin, which we left to the right, and proceeded down the valley of Shefat 'Amar. At 2h. 30m., the same camel having again come to the ground and commenced roaring, we exchanged him for one of the others. The hills around us were covered, as is generally the case in Syria, with rocks and short stunted trees; but here and there strips were cultivated in the bottoms of the valleys; and here the road dwindled into a mere footpath. At 3h. 50m., descending from a low range of hills, we reached a well called Bir-el-Bteder, and the ruins of a khan of the same name. The soil here appeared excellent, judging from the small specimens of cultivation visible, but covered with thistles. The Nazareth road here branched off to the right, passing through the village of Sefurieh, where there appeared to be some large buildings. At 7 we reached the village of Turan, and having journeyed 10 hours almost without cessation, pitched our tent in one of the large, open threshing-floors, which appear to be the common property of the inhabitants, and are almost invariably to be met with in the neighbourhood of the villages.†

* 10 P.M., Therm. 72°.

† 11h. 50m. P.M., Therm. in tent 73°.

Sunday, 22nd.—Left our encampment at Turan at 8h. 15m. a.m., the road following the foot of the hills which bound the valley of Lubieh; the direction being about east. The sun in the early part of the day was hot, but being occasionally obscured by clouds, and tempered with a light fresh air, it was far from intolerable. At Turan, as many doves were flying about near the tent, we succeeded in bagging three of them, much to the amusement of the villagers and to the improvement of the pot. At 9h. 30m. we passed Mount Tabor, leaving it to the right, and half an hour afterwards the village of Liblieh also to the right; Mount Tabor appearing to be an insulated hill of a rounded form, something resembling an inverted basin, but of no great height. The mountains on either side of the valley of the Jordan were now visible, and the gap between them, running nearly N. and S., pointed out the direction of our future course. A portion of the land appeared to be cultivated, but the hills looked barren and arid in the extreme. Passed some very large herds of camels which were quietly grazing, the property of a Bedouin tribe in the neighbourhood.

At 11h. 30m. arrived at the top of the last ridge of hills overlooking the lake of Tiberias and the valley of the Jordan, and enjoyed a most magnificent view. Jebel Sheikh, smothered in clouds, was distinctly seen, bearing N.N.E. (by compass); before us were the blue waters of Tiberias, surrounded by fine ranges of hills; to the left the white ruins of Safed, perched on a hill; and near the northern end of the lake a gap in the mountains, with a green patch, which pointed out the spot where the Jordan discharges its waters into Tiberias, as well as the ruins of an ancient town, which stand at a short distance from its embouchure.

At 12h. 50m. a great crisis took place. We had experienced some difficulty in descending the upper part of the hills above Tiberias, but by degrees the road became so steep, that we were obliged to hold up the boat by ropes, till at length we arrived at a point beyond which the camels could not proceed, and to return was impossible; the stones, when started, rolled to the bottom; the camels began to roar; then followed the usual trembling of the legs,—the certain precursor of a fall; and, in short, to save the boat, it became necessary to cut the lashings and let her slide down on her keel to the foot of the hill. There we again harnessed the unfortunate camels, and proceeded without further mishap to Tiberias, where we arrived at 1h. 50m. p.m., and passing under the walls of the town, we pitched our tent within a few yards of

the water. Tiberias is a larger place than I had expected, and must have been tolerably well fortified.*

Monday, 23rd.—At 6h. 45m. A.M. we embarked in our little boat on the lake of Tiberias, taking with us lead, lines, &c., and everything necessary for sounding, and stood across with a light breeze till we reached, as nearly as I could judge, the centre of the lake, from whence we directed our course to its northern extremity, as I was anxious to get there in time for the sun's altitude at noon.† The observation gave us 32° 49' N. for the latitude, but it was taken about 3½' to the S. of that point. It was now so broiling hot that we landed, and remained four hours under the shade of a willow-tree, to eat and to escape from the heat of the sun. At 4 we embarked with a light breeze, which carried us over to the eastern shore, sounding occasionally until we brought Tiberias to bear W., when we stood across and reached the tent at 8 o'clock, after a very hard day's work.

Tuesday, 24th.‡—It appears to me that the lake as marked on the maps is too small, for from Tiberias to the eastern shore cannot be less than 8 or 9 miles, and from the northern entrance of the Jordan to its exit at the southern end I consider to be about 18 miles; but the high land opposite Tiberias renders its breadth very deceiving to the eye when viewed from the shore. At a quarter before 5 we left Tiberias and rode down by the ruined walls at the side of the lake. After looking at the hot-springs, the temperature of which was about 130°, I sent on the baggage, and embarking in the dingy, ran off about E.S.E. for a couple of hours, when finding, as I expected, but 13 or 14 fathoms, stood in again, and kept along the shore near the baggage. The road, however, soon left the beach, and we therefore parted company with the beasts and baggage; but Toby rode round near the water to direct us to the entrance of the river, which we found after running about a mile under some low cliffs. It lies at the western side of the low land that runs across the valley, and bounds the lake at its southern extremity. As we rounded the point at the end of the above cliffs, we turned short to the right, steering to the N. of W. for about ten or fifteen minutes, till at length the river went away S. At 7h. 20m. we had entered the Jordan, it being then dusk, but we had a fine moon; and, fifteen minutes afterwards, we landed on the right bank, at the eastern point of a little bay formed by the enlargement of the river. On the other side of the bay, and for

* 12h. 25m. P.M., Therm. in tent 82°.

† 9h. 30m. A.M., Therm. in shade 92°; 12h. 30m., in shade, Therm. 103°.

‡ 6h. A.M., Therm. in tent 82°, at noon 105°, at 5h. 30m. P.M. 105°.

some distance along the shore, there was a large Arab encampment; and we began to apprehend that we were to meet with a warm reception on our first landing on the banks of the Jordan; for, as soon as Toby had pointed out the place for us to stop, he went back to look after the baggage; and, while we landed the things out of the boat, suddenly we saw the Arabs in considerable numbers running round the head of the bay which separated their encampment from ours. Unfortunately my pistols were in my holsters with the horses, so that I was obliged to take my loaded gun and go forward to meet these unwelcome visitors. By means of signs, however, we convinced them that we only wished to sleep there for the night, and by degrees they left us. I afterwards found that they belonged to a tribe which only five days ago had been fighting with, and was worsted by the Beni-Sakhers, and were therefore obliged to take refuge on this side of the river. The next morning they again assembled round our tent, but they appeared to be friendly. I counted 90 men and boys.

Wednesday, 25th.—At 8h. 15m. A.M. we left our encampment at Kerak, sent the boat across the bay, and rode round with our baggage through the Arab tents, in order to see it clear off. Hitherto, for the short distance we had come, the river had been upwards of 100 feet broad and 4 or 5 feet deep; but the first turning after leaving the Arabs brought us to the remains of a large ruined bridge, the arches of which having all fallen down, completely obstructed the passage. Here our difficulties commenced; and for seven hours that we travelled that day, we scarcely ever had sufficient water to swim the boat for a hundred yards together. Many of the Arabs accompanied us down the banks of the river, possibly to rejoice over, or to take advantage of, any misfortune which might attend us. We afterwards passed two or three other encampments, the people of which seemed greatly surprised, and turned out to see us get the boat along, but did not offer any molestation. In many places the river is split into a number of small streams, and consequently without much water in any of them. About an hour and a half after starting we came to a full stop, and were obliged to take everything out, and carry the boat upwards of 100 yards over rocks and through thorny bushes; and in many other places afterwards it was nearly as bad. The *Ghor*, or great valley of the Jordan, is here about 8 or 9 miles broad; and this space is anything but a flat—nothing but a continuation of bare hills, with yellow dried-up weeds, which look, when distant, like corn-stubbles. These hills, however, sink into insignificance when compared to the ranges of mountains which enclose the *Ghor*, and it is therefore only

by comparison that this part of the Ghor is entitled to be called a valley.

I was surprised to find a great number of weirs running across the river; but most of them appeared to be only loose walls of stones, mud, and turf, and rising 3 or 4 feet above the water. I have seen three of them within less than a hundred yards. These weirs turn the stream into small channels, which irrigate the little green patches on either side, and produce the scanty vegetation on which the Arab flocks subsist. These weirs we found very troublesome, it being necessary to pull down a part of the wall so as to make a gap for the boat to pass; and, in some places, to avoid a row, we had to build up the gap again. At about 10h. 30m. A.M., having come to one of those weirs that was higher than the rest, and made of more solid masonry, we had to launch the boat from the top, 3 or 4 feet down into the river. These things, and the men being obliged to be constantly in the water, rendered it a matter of great difficulty to keep our arms and ammunition ready at a moment's notice, as well as to preserve some kind of communication with the cattle and baggage, which were frequently obliged to diverge to a considerable distance from the river; but a capital fellow that we hired at Tiberias as a guide, assisted us greatly in overcoming all our difficulties. At 11h. 30m. Jebel Sheikh bore N.N.E. by compass, and Jebel Ajloun S.S.E. When approaching the village of Summakh we had high, steep, sandy cliffs all along the banks of the river, particularly to the left; and the baggage animals were obliged to go along the top of these cliffs, while the boat was in the ravine below. At 12 o'clock we were nearly opposite the village of Summakh, which is perched on a round sandy hill, and looking as dry and miserable as the rest of the country. At this time I had just shot a very beautiful kind of kingfisher, and most of my other barrels had been discharged at an animal we saw on the banks of the river, which the guide called a boar, but it appeared to me more like a gigantic fox, when Toby called out to me to load my pistols—and, on looking up, I saw the camels and muleteers surrounded with a cluster of spears. I was not much surprised, for I had been expecting this for some time, and, after loading, Toby and I rode up a ravine towards the party, leaving the men to get their arms ready, and to follow if I made a sign. When I arrived on the top of the cliff, I found four Bedouins mounted and drawn up in line before the camels, and the sheikh, dismounted, standing before them. I saluted him, and told Toby to ask him what he wanted. He said that we were travelling through his country, and that it was customary for all travellers to pay

him; for without payment it was impossible for us to proceed. I explained to him the object we had in coming, and showed him how we were armed; and, after a long and angry altercation, which nearly led to blows, we made the camels and mules go down the hill to a ford, and waved to the boat to come on and join us there. The Arabs rode down the hill close to us, but did not attempt actually to lay a hand on the baggage. The sheikh insisted on being paid 600 piastres; he said his country extended 2 days' journey down the valley, and that, if I would pay him, he and his men would go with us and see us safe to the country of the next sheikh. Circumstanced as we were, it was impossible for us to protect the baggage and at the same time take the boat down the river; and as the road was too bad for the camels to carry the dingy, I saw that it was necessary, if possible, to come to some terms with these people, and therefore offered the sheikh 100 piastres to convoy us through his country and to guarantee the safety of the baggage. This proposal he treated with the most perfect contempt, and our muleteers and camel-drivers refused to proceed; but the sight of our pistols frightened them into obedience, and we went down to the village, Bedouins and all. At the village, Toby having found out that our new acquaintances belonged to the strong tribe of Beni-Sakhers, and that the valley of the Jordan was full of them, I signified to the sheikh that I would give him 200 piastres, and, if that would not do, that he might take what he could get, making at the same time a proper display of our arms. After some discussion between himself and his men, they at length agreed to the terms, and we proceeded together, along with a great number of the inhabitants of the village, who had collected around us.

We had got about $1\frac{1}{2}$ mile below the village of Abadiyeh when we saw another party of horsemen coming towards us, on which our Bedouins crossed over to the other side of the river. Soon, however, the old sheikh discovered that it was the governor of Tiberias, for whom, happily, I had the pasha's letter at hand; and, riding up, I gave it to him, followed by the Beni-Sakhers. I found that he was accompanied by a Bedouin sheikh and a few men; and, after reading the letter, he requested that I would return with him to the village of Abadiyeh, when he would give me a letter to the sheikh of the next tribe, and send also the sheikh who had arrived with himself. We repaired accordingly to a house in the village; and when his secretary had finished the letter, we departed in company with our new sheikh; the boat in the mean time having gone on in charge of the other chief.

After proceeding a short distance we came to the ruined village of El Buk'ah, where I determined to stop for the night, as we had all been hard worked throughout the day. At this place we found the ruins of two villages on each side of the river, but nothing more remaining than bare broken-down walls. We pitched our tent on the western side of the river, after hauling the boat up on the bank. Just above this place there was a small waterfall, down which we had been obliged to ease the boat. The Bedouins stuck their spears in the ground around us, and, making their halters fast, asked us for food; but, as we had none to give them, four of the party started off in different directions to procure some.

I was much interested during the night in observing the extraordinary sagacity of the Arab mares, which are indeed beautiful creatures. The old sheikh lay down to sleep with his mare tied close to him, and twice during the evening she gave him notice of the approach of footsteps, by walking round and round, and when that did not awaken him she put her head down and neighed. The first party she notified were some stray camels, and the second some of our own party returning. The Beni-Sakhers generally ride with a halter only, except when they apprehend danger; and then, the moment they take their bridles from their saddle-bow, the mares turn their heads round and open their mouths to receive the bit. I have seen this myself frequently.

Thursday, 26th.—The river appeared to be so difficult for some distance below where we encamped, and it injured the boat so much getting her over the rocks and stones, that I determined to try her on the camels, although they were but small; and after some difficulty we succeeded in fixing her. Mr. Smith and I rode down the right bank of the river with the mules and baggage, and the rest of the party went down the left bank with the camels. From a hill over which our road lay I had a very fine view of the whole valley, with its many Arab encampments, all made of the common coarse black camel-hair cloth. Very large herds of camels were to be seen in every direction, stalking about upon the apparently barren hills in search of food. The Jordan had split into two streams of about equal size shortly after leaving El Buk'ah; and its winding course, which was marked by luxuriant vegetation, looked like a gigantic serpent twisting down the valley. After forming an island of an oval form and about five or six miles in circumference, the two branches of the Jordan again unite immediately above an old curiously formed bridge, marked in the map as Jisr Mejamia. This bridge, which is still in such good preservation that the road passes over it, is

of one large pointed arch in the centre, with two smaller ones on either side, and over the latter there are three or four small arches of the same shape, which go quite through the masonry. On the western bank, opposite the end of the bridge, there is a large ruined building, of a square form, and not less than 200 feet each way; it had been well built, and even now has the remains of a fine massive gateway, composed of very large stones and looking somewhat Egyptian. The walls of this quadrangle were high and loop-holed, and had several well-built towers, some of which had windows, and in the centre stood a large cistern. The sheikh told me that this building is called Khan Alessar. Having arrived at this place with the baggage, before the camels and boat, I had time to examine the building, and also the bridge, on which I found long flat steps about 10 inches in height; and the whole built of a very dark stone, abutting against the solid rock.

The camels could not cross the river with the boat; we therefore put her on the water; and afterwards found the river so much improved that we put the spars on one of the camels, and the boat again went quietly down the stream.

The country along the banks of the Jordan appeared to be very populous; and I became convinced that it would have been utterly impossible to have succeeded, circumstanced as we were, in getting the boat down in opposition to the Arabs. The ghor or valley now began to bear a much better and more fertile aspect. It appears to be composed of two different platforms; the upper one on either side projects from the foot of the hills, which form the great valley, and is tolerably level, but barren and uncultivated. It then falls away in the form of rounded sand-hills, or whitish perpendicular cliffs, varying from 150 to 200 feet in height, to the lower plain, which should more properly be called the valley of the Jordan. The river here and there washes the foot of the cliffs which enclose this smaller valley, but generally it winds in the most tortuous manner between them. In many places these cliffs are like walls, and entirely precluded the possibility of communication between the river and our cattle above. About this part of the Jordan the lower plain might be perhaps $1\frac{1}{2}$ or 2 miles broad, and so full of the most rank and luxuriant vegetation, like a jungle, that in a few spots only can anything approach its banks. Some of the bushes and ferns are very beautiful, particularly a feathery-leaved tree (something like the cedar of Lebanon), of which there is a great quantity.

At Khan Alessar the Bedouins that we had with us were very anxious that we should take another sheikh, which, however, I positively refused; and after, as usual, great talking, they

yielded the point; soon afterwards they wanted me to pay for corn for their horses, which I again refused, and again there was a row. I had bother enough to-day to drive any reasonable person mad: almost every minute of it I was expecting that we should come to blows; but happily I had seven barrels about my person, which I took good care to let them know; for it is still the fact that throughout the country of Ishmael "every man's hand is against every man." I was obliged frequently to ride backwards and forwards between the boats and the baggage, to know the relative position of each, and to appoint places where we should meet; but happily the river became much better after passing Khan Alessar, so that the boat got on very well. Once or twice the Beni-Sakhers were afraid of the approach of the Anizees (Aenezes), with whom they are at war, and, dismounting their horses, some of them went to the top of the nearest sand-hills to look out. I found a railway-whistle, that I had taken with me, a very useful appendage to our operations, as it was heard a long way off. At about four o'clock, having now travelled about seven hours, we agreed to stop for the night; but when the tent was half-pitched the sheikh declared that he was afraid to sleep there, and a row ensued in consequence of my refusing to proceed, but it gradually subsided. I saw to-day in the jungle a large wild boar, and a small herd of gazelles, as well as great numbers of jackals; and also doves, eagles, and vultures innumerable; but I had too many other things to do to trouble myself about them, and indeed I was afraid to discharge my barrels. The two sheikhs went away about six o'clock with the letter from the governor of Tiberias to find the sheikh who is to go on with us; and about two hours afterwards the two who remained with us rushed into the tent, saying that some other Bedouins were coming, and we all had to turn out with our arms. We mustered altogether twenty-two barrels; and our ammunition being laid out already in the tent, we should have been able to keep up a good fire, as we were encamped on a nice shingle-bank, about 80 yards long and 50 wide, with the river on one side and the thick bush on the other. It proved to be a false alarm, as only two horsemen issued from the bush into the moonlight, and they were quickly recognised to be two of the party who had gone in search of the other sheikh. It would be quite impossible to give any account of the various turnings of the Jordan in its way from the Lake of Tiberias to the Dead Sea; it was well and quaintly described in a newspaper I saw the other day as "the crookedest river wot is." *

* 10 P.M., thermometer in tent 92°.

Friday, 27th.—Our two sheikhs returned last night, and said that the sheikh of the Ameers, who is to go on with us, would arrive in the morning. We had great trouble with our Bedouins this day. After paying the Beni-Sakhers, who had accompanied us from Abadiyeh, which was a very noisy and vexatious operation, we were left with the brother of the sheikh of the tribe; and no sooner was the boat out of sight than he began to talk about payment, and even asked 25*l.* to accompany us to Jericho, where at first they said they would go. We found out, however, that their tribe extends no farther than Abou Obeidah, near the river Zerka, and that they dare not go beyond that place. After the usual altercations, we agreed to give them three dollars for to-day, and to arrange at our resting-place about the rest. The place at which we had bivouacked the Arabs call Attah, and there the lower valley, through which the river more immediately runs, breaks out into a magnificent plain, extending from the foot of the hills on either side across the Ghor, but with a high step on the western side, where the large Arab village of Beisán stands. On setting out we were soon obliged to mount to the top of the high western ridge, and passed that village at some distance about 9h. 30m. The country here appeared very different from that which we had passed since leaving the Lake Tiberias. The higher ground abreast of Beisán, and as far as I could see to the southward, is fertile, well-watered, and cultivated, chiefly with Indian corn. It is also thickly inhabited; for hundreds of small sheds might be seen studded on the plain with men watching the crops, and slinging stones to keep off the birds. I think the view from this point over the valley of the Jordan was one of the finest things I had seen—an abundant vegetation extending up the slopes of the eastern hills, which are crowned with trees up to the summit, and everything growing in the wildest luxuriance; while on the western side the higher steppe breaks down into steep sand-hills or whitish perpendicular cliffs, with only here and there the means of ascent. The river, as usual, winds very much, with banks about 20 feet in height, of brown clayey soil, somewhat resembling those of the Thames, and for some distance on either side a thick and almost impenetrable jungle.

We made but a short journey to-day, as it was necessary to send back to Beisán to get barley for the horses, and also food for the Arabs; and we therefore pitched our tent on the small island of El Kerma, on the western side of the river, being a safe position; for I did not half like the look of the people. While riding I killed two doves at one shot from the back of

my horse, which had a good effect on the Arabs.* At about two o'clock the head sheikh arrived; and in his presence, after the customary abominable row, we agreed to give four men 40 piastres each to take us to Abou Obeidah in two days, and to the arbitrator (rather a fine fellow) a dollar as his share of the booty. Soon after his departure our escort began to be troublesome, and the sheikh demanded 150 piastres for himself, besides what we had agreed to pay; but I told him that rather than pay it we would put the boat on the camels (which, however, was impossible), proceed as we liked, and defend ourselves. They then waxed sulky, saying they would not go at all; and at sunset they actually mounted and rode away, saying that we might get out of the scrape as best we could. We lost no time, therefore, in preparing for a serious quarrel, as it was not probable that we should get through the night without one, or reach the Dead Sea without a fight. We despatched the guide and one of the muleteers to find the other sheikh, with whom they returned in an hour, and we all sat down at the door of the tent and commenced haranguing. The old sheikh said it was not safe for us to remain where we were, and pressed us vehemently to leave the boat and the river, and go with him and the baggage to his tribe; but at last he agreed to leave one or two of his men with us, whom, in case of a row, I promised to defend. This old sheikh, Emir Nasr—a fine-looking fellow, with eyes that looked through one, and a tremendous jet-black beard—after all was settled, took his leave.

The river to-day, so far as we came, was very good for the boat; but in the upper part of it, I am within the mark when I say that there are many hundreds of places where we might have walked across, without wetting our feet, on the large rocks and stones. I never expected one-tenth of the difficulties that we had already experienced, and I was a good deal knocked up by the sun to-day, for the first time—it was, indeed, almost insufferable, but fortunately the men as yet are all well. I hoped to get down to the Dead Sea in four or five days; but it was almost like moving an army in an enemy's country—not only looking out for positions where we could not be taken by surprise, but anxiously looking out also for supplying our commissariat; for though the muddy Jordan is throughout full of small fish, yet we began to fear about our provisions, and determined to rely more on our guns for something to eat, so that we might save what we had for the Dead Sea. We succeeded, however, in getting some melons and

* 1 P.M., thermometer in tent 108°.

flour from Beisán to-day; but the Bedouins generally will sell nothing—indeed they appear to have but little to spare, rich as the country appears to be.

The Arabs we now have are Ameers, and differ from the Beni-Sakhers in having a quantity of black ringlets about their faces, while the latter have only a few locks on the top of the head; indeed I have scarcely seen a man since leaving Tiberias who had not jet-black whiskers, beard, and moustache.

From seeing a quantity of deposit in the plain of the Jordan to-day, and the marks of water in various places at a distance from the river, it was evident that the Jordan widely overflows its banks; and the sheikh informed me that in winter it is occasionally half an hour across; which accounts for the luxuriant vegetation in this part of the Ghor.*

Saturday, 28th.—A heavy dew fell last night; and as I slept at the door of the tent, I woke up wet through; but we set off at 7 A.M. The river continued to be very good for the boat, but there was nothing like a road for the camels; so that, having sometimes to ascend the sand-hills, and at others to traverse the marshy banks of the river, we had some difficulty in getting the baggage animals along. The country during the early part of the day was very fine, well watered, and fertile: our road lay through the best part of the valley; but very soon the higher terraces on either side began to close in, and to narrow the fertile space below; the hills became irregular and only partly cultivated; and by degrees the whole Ghor resumed its original form, and quite different from the neighbourhood of Beisán. The zig-zag course of the river was prettily marked by lines of green foliage on its banks, as it veered from the cliffs on one side to those on the other.

At nine o'clock we pulled up with the baggage at an Arab encampment on the western terrace, where a great sheikh resides, of the name of Namre. We entered his tent and drank some boiled milk and coffee, surrounded by forty or fifty savage-looking Bedouins, who rode up, and sticking their spears in the ground, tied their mares to the tent-ropes. The whole plain seemed full of these horsemen, belonging to the tribe of Ameers, riding through the fields of Indian corn, spear in hand.

At 11 A.M. we rode down to the river, forded it, and pulled up on the other side to await the arrival of the boat, which was far behind in consequence of the great windings of the river, and our sheikh tried hard to oblige me to remain there

* 11h. 30m. P.M., thermometer in tent 83°.

for the night, but I insisted upon proceeding. His object was to keep us three days between El-Kerma and Abou Obeidah, instead of two, according to his agreement, and thereby to get more money; while I was very anxious to get down to the Dead Sea, and over this part of the business, which was one continual scene of squabble and trouble. The sun was extremely hot, but at 12h. we again started, and found some difficulty in getting along near the river, being obliged to wind about among the ravines and sand-hills, which here approach close to the river. About 1 o'clock a number of men armed with muskets came down through the bush on the opposite or western side, forded the river, and came round us. At first I did not know what to make of them; but they came up and saluted our chief by kissing his cheek, and they seemed to be a better and more industrious set of men than the Bedouins, for they cultivate the ground and attend to their flocks of sheep and goats. In consequence of their being frequently robbed by the roving bands of Bedouins, the pasha had given them permission to carry arms, and occasionally assists them in beating off those land pirates; and, seeing our escort descending the hills armed with spears, and not knowing who we were, they had turned out to defend their property. They had good countenances, and seemed to be quite a pastoral race; but where they came from I do not know, for there were no tents or houses near, and there could not have been less than a hundred of them round us while we were pitching the tent. After expressing considerable surprise at us, our arms, and our boat, they left us, peaceably re-crossed the river on the eastern side, and disappeared in the brushwood; and we finished our encampment, close to the river on the eastern side.

We killed a partridge, a duck, some doves, plovers, and curlews during our passage down the river, and I saw also a gazelle, but did not get a shot at him. There had been a few shallows in the river, and occasional obstructions to the passage of the boat from trees, &c.; but, on the whole, she was nearly able to keep up with the baggage.

I learned from our sheikh that his tribe (the Ameers) numbers about 800 men; the Beni-Sakhers 600 or 700; and the Anizees 15,000 or 16,000.*

Sunday, 29th.—We started at 6 o'clock from our resting-place, which the Arabs call Fath-allah, and, after giving directions to the boat, we mounted the hills to the eastward of the river. The Jordan here runs near the foot of the western

* 2 P.M., thermometer in tent 106°; 8h. 30m. P.M., 102°.

mountains, which fall away in steep cliffs to the water's edge, so that the narrow plain of the river, in but very few places, attains to the breadth of half a mile of cultivated ground. The lower hills to the eastward, on the slopes of which we passed with the baggage, can be considered little more than a continuation of the high range of mountains; they are barren and uncultivated, with the exception of occasional wooded patches, and here and there some stunted shrubs or trees covered with sharp thorns. I was much annoyed to-day at being again obliged to diverge considerably from the river with the baggage, and therefore being long without seeing the boat. The water also was very bad, having many shallows and some large falls, and the ruins of a bridge took much time to pass, so that the boat was nearly six hours and a half traversing a distance by water which we walked over quietly with the baggage in three.

At 12h. 30m. the boat reached a place on the river not far from Abou Obeidah, and about one hour and a half to the north of the Wady Zerka, called by the Arabs Seguia. Here we were obliged to remain for the rest of the day, as our sheikh Nahif was afraid to go on the river, being at war, as he said, with the tribe on the opposite side. We therefore sent him by land to Abou Obeidah, to fetch the sheikh who was to go on with us. In the evening he returned, saying that the sheikh would arrive in the morning, but that he would want a good deal of money. I therefore, though with some difficulty, persuaded two Arabs of the country, who were well acquainted with the river and its neighbourhood, to go with us in the morning, and by this means I was in hopes that we should be able to get on without having anything further to do with these villainous Bedouins for the rest of the journey.*

The cliffs on the western side are soft limestone, quite bare, and in some places they cannot be less than 300 or 400 feet high. In one spot only I observed them to be of a reddish hue. Shot doves enough to-day for dinner; and the men in the boat saw two tigers and a boar.

Monday, 30th.—We got away from Seguia at eight in the morning, Nahif and his men having left us at sunrise; but, to our disappointment, the two Arabs who had agreed to accompany us to Jericho hauled off this morning, on pretence that they were afraid to leave their corn; and when the sheikh to whom Nahif went yesterday came from Abou Obeidah, he brought four men with him, for whom his charge was very great. I could not prevail upon him to send one or two only

* Thermometer in tent from 100° to 105°.

as guides ; and, as I could not afford such an expense, I resolved to try what we could do by ourselves. The guide whom we had brought from Tiberias, and who was a good man, was put in the boat along with the other man who had hitherto been assisting there, and Toby and I remained on shore to take care of the baggage. At eight we sent off the boat, and then, fording the river, we rode up on the higher ground to the westward. We had not proceeded far before we saw two Bedouins galloping down to our right, and gradually closing upon us ; and, therefore, not knowing how many more might be following, we tied all the mules and camels together, got our arms ready, and when they came within hail demanded what they wanted, warning them to come no nearer, or we should fire. After making some sneering salaams they retired ; but not before we perceived that one of them belonged to the five fellows whom we had in the morning dismissed from the tent, and I suppose had followed us, hoping to find the baggage unprotected. Soon after this, being on the top of the cliffs, we saw the boat below us, and waved to her to go on. At half-past nine we were abreast of the large old square castle of El-Rabua, perched upon the top of Jebel-Ajloun, where Ibrahim Pasha, when he held this country, kept an Albanian guard ; but at present no one inhabits it. At Seguia the river continued to run near the western hills ; and between Abou Obeidah and the cliffs which terminate the upper ground on that side, there is a considerable plain with many trees, and apparently well cultivated. This plain may extend perhaps eight or ten miles from north to south, the river Zerka bounding it on the latter side. The Jordan there again crosses the Ghor obliquely, and everything, except about its immediate banks, becomes barren and desolate. At 12h. 30m. P.M. we descended from the upper ground into the plain, through which the river runs, and which is here very remarkable, being particularly level and very green ; and the contrast between it and the white cliffs which bound it on either side making it look like one large green river. A short distance above our point of *rendezvous* the river Zerka runs into the Jordan from the eastward, watering (as far as I could see) a small fertile plain similar to that through which the Jordan flows, the white chalky-looking cliffs on each side being about the same height and having the same appearance.

On our arrival on the banks of the river, about a mile below its junction with the Zerka, we saw 40 or 50 armed men, with a number of camels, lying about among the trees ; they were on their way from Es Salt to Nablous with burnt weeds, which are used in making soap, and they behaved quietly enough to

us. An hour after our arrival they went on their road, and we, as usual, stuck Toby's spear in the ground, with the ensign flying on it, as a signal for the boat to bring up, intending to proceed as soon as she arrived. The last time that I had seen her was from the top of the western cliffs; she was then nearly abreast of us, and notwithstanding the windings of the river, as the water was good, and as she had four men to pull and one to steer (Grant, Lyscomb, Winter, with the guide we had brought from Tiberias, and the man we had engaged by the road), I expected her arrival in about an hour. When I found she did not appear I began to feel anxious, and dispatched one of the muleteers up the bank of the river, thinking that she might have mistaken the place of rendezvous, but he soon returned without having seen anything of her; and two other men, who were then sent, came back with no better success, although they went as far as the Zerka and to the hills above. In the mean time two Bedouin horsemen, accompanied by four men on foot, had ridden down, reconnoitred us attentively, and remained near us about an hour; and as it began to get late in the day, I made up my mind to encamp where we were for the night. I therefore looked out for a better position, out of the thoroughfare, and moved all the baggage and animals to a narrow strip of beach between the river and the bush. This being done, and still no signs of the boat, I purposed going in search of her myself; but not being able to speak the language or make inquiries, I was persuaded by Toby to remain with the baggage while he, with one of the muleteers, should ford the river and ride up the eastern bank in search of her. After most anxiously awaiting his return for an hour, he came back full gallop to inform me that he had found the boat; that she had been attacked; and that he had learnt this painful intelligence from the guide and the other Arab, who were now alone bringing her down the river. Their account to him was, that shortly after I had seen the boat from the cliffs, and waved to her to go on (and therefore about the same time that the two Bedouins had ridden up to us), 40 or 50 persons had collected on the banks on each side of the river, armed with muskets; that two-thirds of these men were blacks, belonging to the tribe of the Messallieks; that they commenced their attack by throwing stones at the boat and firing into the water close to her; and that, after they had thus terrified the men, they all waded into the river, seized upon her, and dragged her to the shore. Lyscomb, who drew a pistol, was knocked into the water by a blow of a stick; and, having got the boat on the shore, they robbed the men of all their arms and ammunition, took their hats, and let them go. They also robbed the two

Arabs of their arms, and of most of their clothes, and threatened to kill them, but let them off with a beating. This was all the intelligence he could then obtain; and, as may be supposed, I was thunderstruck by the recital of these melancholy facts. The guide and the other Arab had remained by the boat for half an hour, hoping that our men would return; but seeing nothing more of them, they concluded that they had endeavoured to follow me, and accordingly they proceeded down the river with the boat.

It was now six or seven hours since Grant, Lyscomb, and Winter had left the boat, so that had they taken the right road they must have been with us some hours back. To remain long where we were I felt would only be to wait to be attacked by overwhelming numbers; to go back would be to face the whole of this villainous tribe, and I was perfectly ignorant as to what there still might be between us and Jericho, and therefore put all the baggage on the cattle and prepared for a start. The boat arrived in half an hour; and as I could at first get no one to undertake to go on with her, we hauled her up into the bushes, hoping to return with strength enough to carry her away. But at length the two men who had brought her down offered to take her to Jericho. She was immediately launched. I gave them some bread and biscuit, and directed them, in the event of our not reaching Jericho, to proceed to Jerusalem, and to let the consul know where we had last been seen. It was dusk when the boat left us, and having disposed our arms to the best advantage, and filled my pockets with ammunition, but with a very heavy heart, I set the animals in motion, and with Toby followed them up the same road by which we had in the morning descended from the higher ground to the river. The party consisted of two camels laden with the spars and boat's gear, and driven by an old man mounted upon a donkey, and five mules laden with baggage and provisions for men and horses, three of which were intended for our comrades, should we happily find them. The man we brought from Seguaia as guide (and who was the most perfect specimen of a boor I ever beheld) rode one of the mules, carrying Toby's spear. As soon as we reached the top of the cliffs we left the regular path, and turned into the bushes to avoid being seen, as we felt sure, after what had taken place, that a good look-out would be kept upon us. Here we had some doubts of the fidelity of the guide, as he twice tried to take us back into the regular road; but Toby, riding alongside of him with a drawn sword, preserved him from making further mistakes. For two or three hours in misery and distress of mind, silently and in the dark (for the moon was not yet up) we wound about the

ravines and bushes, in vain calling out the names of our lost friends, as loudly as prudence would permit. My horse fell down the side of a hill; the guides, camels, and mules tumbled by turns; every moment we expected a crowd of ruffians to rush upon us; and at one time we lost our way, and had to go round through a long 'wady' full of water and trees, but which perhaps may have helped to save us from being perceived, as it necessarily took us into very unlikely places for laden beasts to travel.

We were now nearly in the centre of the Ghor, surrounded by tribes of the greatest possible rogues, in despair of finding our poor people, and the moon just rising above the hills; and considering that it would be utterly impossible, if we remained, that Toby and I could stand against the numbers who would surround us in the morning, I resolved at once to traverse the 30 or 35 miles of country which separated us from Jericho before daylight, and from thence to dispatch the strongest guard I could collect in search of the men. Heart-rending it was indeed to adopt this course, and thus apparently to abandon our three unfortunate companions; but I could see no other possible means of helping them. Daylight would certainly have brought multitudes of savages about us, and however dearly we might have sold our lives, it is impossible that they could have lasted long.

We therefore took our course along the foot of the western mountains, and for ten long hours we kept constantly moving as fast as the camels could go, without a single stoppage, but preserving the most perfect silence throughout, always avoiding everything like huts or habitations. As we approached Jericho we broke off too much to the right, lost our way, and had partly to retrace our steps; and as we carried no water, and the night was very hot, we were nearly dead with thirst when at five o'clock we reached a small stream called A'in es-Sultan. It had once been apparently conveyed across the valley by an aqueduct, but it now runs under the arches; and having stopped there a few moments to drink, we reached the Castle of Jericho about half-past five, just as the sun shone down into the valley. Nothing but the excitement and sense of danger had preserved us from falling off our horses; and even as it was, I was obliged to walk a considerable part of the distance to enable me to keep my eyes open.

Tuesday, 31st.—On our arrival at Jericho I immediately went up to the old governor in the castle, produced the letter from the governor of Beirout, and by my urgent entreaties succeeded better than I ever did before with a Turk; for in a short time four soldiers well mounted and armed, and accom-

panied by the muleteer, were off in search of our lost friends. I sent by the muleteer some rum, water, and bread, and a note for Grant; and the man we had brought from Segua as guide I desired to go up along the river-side in search of the boat, so that if we should happily find the men, we might yet be able to carry out our project.

The valley of the Jordan, from the place where we were attacked down to the neighbourhood of Jericho, needs but little description, being much the same throughout. The lower valley is about three-quarters of a mile broad; and within those bounds the river winds extremely. The cliffs on either side have still the same whitish, chalky appearance, and fall away abruptly from the upper land, which, both to the E. and W. of the river for the last 30 miles of its course, has a barren and desolate appearance, and is but little cultivated. Near Jericho the formation of the ground becomes less regular; the western mountains, in one or two places, jut out considerably into the Ghor; the cliffs less exactly mark the bounds of the lower plain; and just abreast of Jericho, near the bathing-place, the descent from the higher ground is by a number of rounded sand-hills. A large patch of green stunted trees and shrubs marks the site of what is supposed to be the ancient Jericho, and here and there are to be seen the remains of some considerable buildings, with fragments of an aqueduct at the foot of the hills to the N.W. of the modern village. Around this mud-built village there is some cultivated ground, watered by two streams, one of which flows from Elisha's fountain.

After the horses had been fed and rested, Toby and I started, accompanied by one man, from the castle, in time to reach Jerusalem before sunset, the gates being closed at that hour. About three miles from Jerusalem we met the consul, Mr. Finn, who, with a guard, was on his way to Jericho for the purpose of hearing some tidings of us; and he immediately turned round to introduce us to the Pasha. This being Ramazan, his Excellency sleeps throughout the day, eats at sunset, and after that transacts business; he was therefore still at his evening meal when we called. We had to talk a great deal before we could get anything out of him; he made several excuses—first, that the place where the affair took place was not within his jurisdiction; secondly, that the Bedouins were rebels, and that the Government was unable to do anything with them; but at last we persuaded him to write two letters, which we dictated, one to the governor of Nablous, directing him to send in search of the men throughout the country, and bring them as speedily as possible to Jerusalem or Jericho; and the other to the Pasha of Damascus, within

whose pashalik is Abou Obeidah, requesting him to take any measures in his power to recover the men and arms. He then consented to give me ten soldiers to go with me to Jericho, and to accompany me in any search that I might myself undertake. He also promised, when my search was over, to order five men to escort us from Jericho to the Dead Sea, should I still determine to embark on it. I slept at Mashallum's hotel, and the consul kindly agreed to go back with me and the soldiers to Jericho in the morning.

Wednesday, September 1st.—The consul having duly come to the hotel, we started at eleven o'clock; and I took with me a Greek belonging to the hotel, who had been two or three years at sea. We found our Turkish soldiers very slow in moving, and before we had travelled an hour and a half they stopped at a fountain to rest, so that we did not arrive at Jericho till half-past five.

The two Arabs had succeeded in bringing the boat down the river; she was now at Jericho; but they had fallen in with more Bedouins, who, finding that there was nothing in her worth taking, had allowed her to pass. Soon after our arrival we dispatched through Mustafá (the Agha of our soldiers) two Bedouins belonging to the country to the place where I thought there was most chance of getting some tidings of our lost men, and we employed ourselves in finding out all we could about the men who attacked the boat, their names, tribe, &c., and made arrangements for sending the particulars to the Pasha of Damascus. The Prussian consul, Dr. Schultz, came from Jerusalem to see if he could be of any service, having heard of our misfortune, and pitched his tent near ours. I received through Mr. Finn this morning a letter from Captain Symonds, stating that he purposed leaving Beirout on the 3rd, and hoped to be at Jaffa on the 6th of September.

Thursday, 2nd.—Being Ramazan, we could not get the Turkish soldiers to make a start till after their midnight meal; at one, however, they turned out, the drummers, with their two small kettle-drums at their saddle-bow, sounding the call to mount. The moon was well up, and by its light we rode through the stones and prickly bushes of Jericho, putting the guide who accompanied us the other night in front. Besides him there were sixteen soldiers, the English consul and his man, Toby and myself—quite a little army. We passed over the same road which Toby and I had traversed the other night, but at a much quicker pace; and as we passed the ravines and places of concealment I always sounded a railway-whistle, which the men would have recognised at a considerable distance. We rode on till sunrise, yet no signs of our lost

men ; and about seven o'clock, having ridden fast, we reached the upper ground near which we had commenced our retreat. For some time we continued to rove about the sand-hills and over a considerable space of ground, occasionally making inquiries of the old women and boys who were burning weeds in the ravines, till at last the Agha said it was impossible to go further ; the horses were already suffering, and he must return to Jericho. We therefore made one more circuit among the mountains, and commenced retracing our steps from the place where I had last seen my poor men. We met several people, to each of whom we promised a good reward should they bring the men, or any information respecting them, either to Beirout or Jerusalem. This was all I could do ; and, under a broiling sun, and much distress at our failure, we rode back to Jericho, having been twelve hours on horseback, riding fast, and almost without dismounting, so that some of the soldiers were much exhausted before they reached the spring at which we had stopped on Monday night. Soon after one we reached our tent outside the castle, and I began to think what should now be done under existing circumstances. The boat had arrived, and we had everything at hand except, alas, the men. Had they been present I should have at once embarked on the Dead Sea ; but all interest in our original project was lost until I could hear of their safety. Yet I could not help flattering myself that they were safe ; for as the Arabs had not attempted to injure them personally, there were great hopes that they had struck across the mountains for the coast ; and as I had constantly shown them our track on the map, there was every reason to suppose that they were well acquainted with its position. If I could have ascertained that any bodily evil had really befallen them, I should at once have returned to the coast ; but as I did not despair of their safety, I hardly considered myself justified in doing so. On the other hand, I was in such a desponding and gloomy mood that I had no energy to undertake any enterprise. Yet, should the men have happily reached the coast in safety, I should for ever reproach myself, after vanquishing so many difficulties, and getting the boat and everything necessary to the very point, if I threw away the opportunity and returned without accomplishing anything. In short I knew not what to do.

At eight o'clock the Agha came into our tent and inquired about my future proceedings. I told him that I proposed sending the boat down the river in the morning, and if he would give me the soldiers promised by the Pasha, I would ride down with them and Mr. Finn as early as possible to the mouth of the Jordan, and then decide whether it was prac-

licable to go afloat or not. If I found that I was obliged to give up the matter for want of men, or from any other cause, I should at once put the boat on the camels, and return to Jericho; otherwise I intended to pitch the tent at the mouth of the river, and leave it standing in charge of the guard till I came back with the boat. To this arrangement he consented, and promised to be ready by sunrise. After drinking some tea and smoking sundry pipes and narghilés, Mustafa retired into the castle to sleep.

Friday, 3rd.—Notwithstanding the Agha's promises, I was unable to get him out of bed till long after sunrise; so in the mean time I dispatched three men to take the boat from the place where she lay, abreast of Jericho, down to the mouth of the river, and then I sent the baggage and all the boat's gear there in charge of one of the soldiers. At eight o'clock the Agha made his appearance, the kettle-drums were sounded, about a dozen soldiers mounted their horses, and we all proceeded to the post. On our way we passed the ruins of an old Greek monastery, near which there is a spring of good water; and in about three hours and a half we reached the mouth of the river, where I was glad to find the boat at last floating on the sluggish waters of the Dead Sea. We had great difficulty in getting anywhere near the shore, on account of the marshy nature of the ground, several horses and mules having sunk up to their bodies in the mud; but at length we pitched the tent on a small patch of sound but sandy ground.

Having now made up my mind to make the attempt along with Toby, the guide we had brought from Tiberias, and the Greek whom I brought down from Jerusalem, we quickly prepared for embarking; and Mr. Finn and the Agha at 5 o'clock left me, taking with them all the soldiers, except two that were left to take charge of the tent. By 6 P.M. all was embarked; and, after spending a short time in cleansing ourselves from the mud, we shoved off from this vile place, just as it was falling dark, with only two oars, and with no one who had much idea of using them, except myself, or any notion of boat-sailing. Under these circumstances, as I made sail and lost sight of the northern shore, I could not help feeling that I was embarked in a silly if not a perilous undertaking. The breeze gradually freshened till there was quite sea enough for such a little craft; but I continued to steer about S. by W. till 2h. 30m. A.M., having passed several large patches of white frothy foam; and, as the sea made an unusual noise, I was many times afraid that they were breakers.

Saturday, 4th.—At half-past two, thinking we must be approaching the southern end of the sea, I hauled to the wind,

and stood over towards the western shore. As daylight broke I found myself about 5 miles from the S. peninsula and about 2 miles from the cliffs which bound the sea to the westward. The breeze then died away, and by 7 o'clock it was calm. The sun had for some time poured its rays over the tops of the eastern mountains into this misty furnace, and we all felt very much as if we were in a well-heated oven. From Rás-el-Feshkah, at the northern end of the sea, nearly down to the peninsula, the western hills rise almost like a perpendicular wall to the height of 1200 or 1500 feet; and in one small gap only about Engiddi was there the slightest sign of vegetation in the ravines which seemed to betoken the presence of water. But I did not attempt to land, the heat being too intolerable, and having been strongly recommended not to do so, as the Bedouins occasionally approach the shores. The mountains on the eastern side are considerably higher than those to the westward, but slope down more gradually to the water's edge, and are broken by many large wadys or ravines. They much resemble some parts of the mountains of Lebanon, only they are more completely barren and scorched. Having taken a good look round, I stood off a little farther from the western shore; and when we reached the point where I thought the deepest water was to be found, judging from the formation of the land, I took a cast with the deep-sea lead. The extremes of the peninsula bore by compass about S.S.W. and S. $\frac{1}{2}$ E.; Mount Quarantana barely clear of Ras-el-Feshkah bore due N., and the farthest land visible at the N.E. end of the Dead Sea bore N.N.E. We paid out all the line, amounting to 225 fathoms, without feeling sure that the lead had reached the bottom; but it was no easy task to haul it up again, so insufferable was the heat, although we contrived some shelter from the sun by means of our coats and blankets. When the lead was up, we found some pieces of clear rock-salt adhering to the *arming*.

Soon after this a light air sprung up from the southward, in direct opposition to our course; which, added to what I had seen of the sea during the previous night, induced me, very much against my wishes, to give up all further attempt to reach the peninsula; and I therefore allowed the boat to drift gently to the northward, endeavouring to keep near the middle of the sea. The peninsula extends at least two-thirds across the sea. The cliffs which bound it have a whitish appearance, but are of no great height; they resemble those I had seen in the valley of the Jordan, and are not unlike parts of the island of Gozo. The water throughout was of a dirty sandy colour, like that of the Jordan: it appeared to be destructive to everything it touched, particularly metals; it had also a dis-

agreeable smell, and produced a very unpleasant greasy feeling when allowed to remain on the skin.

At 11 A.M., when the eastern point of the peninsula bore about S. $\frac{1}{2}$ W., the N.E. point of land N. by E. $\frac{1}{2}$ E., and Mount Quarantana about N. $\frac{1}{2}$ W., I sounded a second time, in 178 fathoms, and the lead brought up a quantity of dark clay or mud. The eastern hills about Ras-el-Tafilah, abreast of which point we were drifting, are peculiar, the different starta being distinctly marked.

About 1 o'clock, Ras-el-Feshkah bearing N.N.W., Jericho due N., and the south-western point of land visible S.S.W. $\frac{1}{2}$ W., we sounded the third time, and the lead came up covered with bluish mud, some of which I scraped off and kept. The depth was 183 fathoms. It now again fell calm; and by the time we had got in the line, we were all completely knocked up. At 3 o'clock we endeavoured to pull a little; but we made such miserable work of it, and the boat leaked so much, that everybody began to despair of getting back. At 5 h. 20 m. a breeze sprung up from the N.W., gradually drawing to the northward and freshening considerably; but the sea also got up so rapidly that the little boat took in much water, and we began to think what should first be thrown overboard, for she was too deep. Being unable to fetch along the eastern shore, about 6h. 15m. P.M. we went about, and spent a most wretched night endeavouring to hold our own by occasionally pulling a lee oar during the lulls.

Sunday, 5th.—We continued on the starboard tack the rest of the night, and at daylight found ourselves about two miles from Ras-el-Feshkah, having lost sight of the peninsula. The wind had fallen, and I was very anxious to sound again, but found it impossible, as no one could keep his head up, and even Toby was so chilled that I was obliged to give him some brandy. We managed to keep gently pulling against a light air from the north-west. At eleven o'clock we got sight of the tent; and at twelve we reached the shore, quite done up, and thankful for having escaped, which none of us expected to do the night before. Everything in the boat was covered with a nasty slimy substance; iron was dreadfully corroded, and looked as if covered in patches with coal-tar; and the effect of the salt spray upon ourselves, by lying upon the skin, and getting into the eyes, nose, and mouth, produced constant thirst and drowsiness, and took away all appetite.

As to the alleged destructive effect of the Dead Sea on birds flying over its surface, we killed some which were actually standing in the water; and on Saturday, while in the very centre of the sea, I three times saw ducks, or some other fowl,

fly past us within shot. I saw no signs, however, of fish, or of any living thing, in the water, although there were many shells on the beach. I must here mention a curious broad strip of foam which appeared to lie in a straight line nearly north and south throughout the whole length of the sea. It did not commence, as might be supposed, at the exit of the Jordan, but some miles to the westward, and it seemed to be constantly bubbling and in motion, like a stream that runs rapidly through a lake of still water; while, nearly over this white track, during both the nights that we were on the water, we observed in the sky a white streak, like a cloud, extending also in a straight line from north to south, and as far as the eye could reach.

Three remarkable points of land project from the eastern shore into the Dead Sea—Ras-el-Balkah, Ras-el-Tafileh, and Ras-el-Kerah—but I only observed one cape worthy of notice on the western side, viz. Ras-el-Feshkah, near its northern extremity. The cliffs are everywhere nearly perpendicular; and the tops of ten other ranges of hills and mountains may be seen rising behind them; but we saw neither buildings nor ruins on any part of its shores. At the northern end of the sea the water shoals gradually, and has a filthy, muddy bottom, at least in the neighbourhood of the Jordan. Farther to the westward we found a beach of shingle, covered with a greasy salt crust.

As soon as we reached the shore we took all the things out of the boat, and during the day packed up, ready for a start; after which we lay down, and had a comfortable sleep.

Monday, 6th.—At daylight we began to move, but the ground about us being much too bad for the camels to carry the boat, we put the tent and baggage on the mules, and two of the men having tracked the boat about two miles along the shore to a more convenient place to put her on the camels, we there hauled her up. As we rode along the beach to that place we saw a man following us, waving a handkerchief, and occasionally firing his pistol; so we pulled up to await his arrival, and to my inexpressible delight it proved to be the consul's Janissary, with a letter to tell me that the three lost men had reached Tiberias in safety; and he brought me also a most kind letter from Captain Symonds, enclosing a copy of the account that they had given him of their adventures. It would be a mere waste of words to state my joy at these tidings.

It was nine o'clock before we started the boat and the camels, and we then found considerable difficulty in getting her up the ravines and sand-hills to the plain on which stands the present village of Jericho, which the Arabs call Riha. On our arrival at that place we pitched the tent under some trees not far

from the old castle, and about five o'clock, while writing, I heard some horses galloping; and, running out, I was surprised and gratified beyond measure to find Curtis and Greaves, who had ridden up from Jaffa, and had come with Mr. Finn from Jerusalem to see me. We all dined in the tent, and spent a most jolly evening.

Tuesday, 7th.—About half-past seven, leaving Toby to bring on the boat, I pushed forward to Jerusalem in order to procure further assistance. I arrived there at 3 P.M., and lost no time in sending to him some fresh camels and six swarthy Arabs, for all which I had to pay 80 piastres. But it was not till 2 P.M. on

Wednesday, 8th, that he and the boat entered the walls of Jerusalem by the Damascus gate. In the mean time I went with the consul to wait upon the Pasha, and to thank him for all his civility.

Thursday, 9th, was passed in bargaining for camels to carry the boat to the sea-coast. On the 10th we finally left Jerusalem, and after two days I had the pleasure of finding myself once more on board H.M.S. Spartan, and of rejoining my three lost comrades.

XI.—On *Eastern Africa*. By Lieut. BARKER. (Communicated by Mr. M^cQueen.)

[Read 8th May, 1848.]

THE islands of Mushakh having been purchased for the British Government from the Sultan of Tajourah, I had the honour of taking possession of them, in the name of Our Most Gracious Queen, on the 31st of August, 1840.

These islands are situated on a coral reef lying in a direction N.E. and S.W., 7 miles by $3\frac{1}{2}$ miles N.W. and S.E., consisting of one elevated about 30 feet above the sea in the highest part, with a few trees scattered about them, such as the mangrove, but not a drop of water. The N.W. end of the N.E. island is situated in lat. $11^{\circ} 43' N.$, and long. $43^{\circ} 19' 29'' E.$, allowing Bombay to be in long. $72^{\circ} 54' 26'' E.$, variation of the compass $5^{\circ} 30' W.$ There is a tolerable anchorage to be found in from 9 to 6 fathoms, muddy bottom, in a gap of the reef N. $39^{\circ} W.$, more than half a mile from N.E. end of Mushakh. Nearly in mid-channel there is a small rocky patch, having only 9 feet water. The soundings on this anchorage they have omitted in the printed chart. The rise and fall of the tide on the full and change of the moon, is 7 and 8 feet. The tides are, however,